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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/045,199

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06/23/2005

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EXAMINER

YAO, KWANG BIN

ART UNIT

PAPER NUMBER

2667

DATE MAILED: 06/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/045,199

Applicant(s)

SANDER ET AL.

Examiner

Kwang B. Yao

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-59 is/are pending in the application.
- 4a) Of the above claim(s) 37-59 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,11-13,15,17-20,29-31,33,35 and 36 is/are rejected.
- 7) ☒ Claim(s) 3-10,14,16,21-28,32 and 34 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/30/03; 7/14/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 11-13, 15, 17-20, 29-31, 33, 35, 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walton et al. (US 2002/0154705) in view of Chillariga et al. (US 2002/0122406).

Walton et al. discloses a communication system comprising the following features:

regarding claim 1, a method of multi-mode RF communications, comprising: during a first timeslot (FIG. 2, ts2), transmitting a first communications signal in accordance with one of a first communications standard using constant-envelope modulation (8-PSK; page 8 [0092]) and a second communications standard using varying-envelope modulation (16-QAM; page 8 [0092]); and during a second adjacent timeslot (FIG. 2, ts3), transmitting the same in accordance with a different one of said first communications standard and said second communications standard;

regarding claim 2, comprising independently setting a power level (page 13, [0137]) of the communications signal in the first and second timeslots (FIG. 2, ts2, ts3); regarding claim 13, wherein the varying-envelope modulation (16-QAM; page 8 [0092]) is QAM; regarding claim 15, wherein the varying-envelope modulation (16-QAM; page 8 [0092]) is QAM; regarding claim 19, an apparatus for multi-mode RF communications, comprising: means for, during a first

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timeslot (FIG. 2, ts2), transmitting a first communications signal in accordance with one of a first communications standard using constant-envelope modulation (8-PSK; page 8 [0092]) and a second communications standard using varying-envelope modulation (16-QAM; page 8 [0092]); and means for, during a next adjacent timeslot (FIG. 2, ts3), transmitting the same in accordance with a different one of said first communications standard and said second communications standard; regarding claim 20, comprising means for independently setting a power level (page 13, [0137]) of the communications signal in the first and second timeslots (FIG. 2, ts2, ts3); regarding claim 31, wherein the varying-envelope modulation (16-QAM; page 8 [0092]) is QAM; regarding claim 33, wherein the varying-envelope modulation (16-QAM; page 8 [0092]) is QAM. See pages 1-14.

Walton et al. does not disclose the following features: regarding claim 1, ramping down the first communications signal at the end of the first timeslot; during a second adjacent timeslot, ramping up a second communications signal; regarding claim 11, wherein the constant-envelope modulation is GMSK, and a GMSK signal is formed; regarding claim 12, wherein a ramp shape for the GMSK signal is determined in accordance with a pulse shape used to generate a communications signal in accordance with the EDGE standard; regarding claim 13, the second communications standard is EDGE, and an EDGE signal is formed; regarding claim 15, the second communications standard is EDGE, and an EDGE signal is formed; regarding claim 17, wherein the constant-envelope modulation is GMSK, and a GMSK signal is formed; regarding claim 18, wherein a ramp shape for the GMSK signal is determined in accordance with a pulse shape used to generate a communications signal in accordance with the EDGE standard; regarding claim 19, means for ramping down the first communications signal at the end of the

first timeslot; and means for, during a next adjacent timeslot, ramping up a second communications signal; regarding claim 29, wherein the constant-envelope modulation is GMSK, and a GMSK signal is formed; regarding claim 30, wherein a ramp shape for the GMSK signal is determined in accordance with a pulse shape used to generate a communications signal in accordance with the EDGE standard; regarding claim 31, the second communications standard is EDGE, and an EDGE signal is formed; regarding claim 33, and the second communications standard is EDGE, and an EDGE signal is formed; regarding claim 35, wherein the constant-envelope modulation is GMSK, and a GMSK signal is formed; regarding claim 36, wherein a ramp shape for the GMSK signal is determined in accordance with a pulse shape used to generate a communications signal in accordance with the EDGE standard.

Chillariga et al. discloses a communication system comprising the following features: regarding claim 1, ramping (page 2, [0013], [0016]; page 12, [0122]; page 13, [0130]) down the first communications signal at the end of the first timeslot; during a second adjacent timeslot, ramping (page 2, [0013], [0016]; page 12, [0122]; page 13, [0130]) up a second communications signal; regarding claim 11, wherein the constant-envelope modulation is GMSK (PAGE 4, [0033]), and a GMSK (PAGE 4, [0033]) signal is formed; regarding claim 12, wherein a ramp shape for the GMSK (PAGE 4, [0033]) signal is determined in accordance with a pulse shape used to generate a communications signal in accordance with the EDGE (page 4, [0033]; page 12, [0121]) standard; regarding claim 13, the second communications standard is EDGE (page 4, [0033]; page 12, [0121]), and an EDGE (page 4, [0033]; page 12, [0121]) signal is formed; regarding claim 15, the second communications standard is EDGE (page 4, [0033]; page 12, [0121]), and an EDGE (page 4, [0033]; page 12, [0121]) signal is formed; regarding claim 17,

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wherein the constant-envelope modulation is GMSK (PAGE 4, [0033]), and a GMSK (PAGE 4, [0033]) signal is formed; regarding claim 18, wherein a ramp shape for the GMSK (PAGE 4, [0033]) signal is determined in accordance with a pulse shape used to generate a communications signal in accordance with the EDGE (page 4, [0033]; page 12, [0121]) standard; regarding claim 19, means for ramping (page 2, [0013], [0016]; page 12, [0122]; page 13, [0130]) down the first communications signal at the end of the first timeslot; and means for, during a next adjacent timeslot, ramping (page 2, [0013], [0016]; page 12, [0122]; page 13, [0130]) up a second communications signal; regarding claim 29, wherein the constant-envelope modulation is GMSK (PAGE 4, [0033]), and a GMSK (PAGE 4, [0033]) signal is formed; regarding claim 30, wherein a ramp shape for the GMSK (PAGE 4, [0033]) signal is determined in accordance with a pulse shape used to generate a communications signal in accordance with the EDGE (page 4, [0033]; page 12, [0121]) standard; regarding claim 31, the second communications standard is EDGE (page 4, [0033]; page 12, [0121]), and an EDGE (page 4, [0033]; page 12, [0121]) signal is formed; regarding claim 33, and the second communications standard is EDGE (page 4, [0033]; page 12, [0121]), and an EDGE (page 4, [0033]; page 12, [0121]) signal is formed; regarding claim 35, wherein the constant-envelope modulation is GMSK (PAGE 4, [0033]), and a GMSK (PAGE 4, [0033]) signal is formed; regarding claim 36, wherein a ramp shape for the GMSK (PAGE 4, [0033]) signal is determined in accordance with a pulse shape used to generate a communications signal in accordance with the EDGE (page 4, [0033]; page 12, [0121]) standard. See pages 1-16. It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Walton et al., by using the features as taught by Chillariga et al., in order to provide an efficient communication system by improving process that permits

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fast macro diversity switching in an environment of timing advance that helps achieve the objectives of improved performance and higher density of MSs. See Chillariga et al., page 4, [0035].

Allowable Subject Matter

3. Claims 3-10, 14, 16, 21-28, 32, 34 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wallace et al. (US 6,473,467) discloses a method for measuring channel information.

Nagai et al. (US 6,393,064) discloses a communication method.

Abe et al. (US 2001/0053142) discloses a radio communication system.

Ikeda et al. (US 5,903,546) discloses a method of improving transmission.


5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kwang B. Yao whose telephone number is 571-272-3182. The examiner can normally be reached on M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H. Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KWANG BIN YAO
PRIMARY EXAMINER



Kwang B. Yao
June 16, 2005